

**Montana Board of Oil and Gas Conservation  
Environmental Assessment**

**Operator:** MRC LLC  
**Well Name/Number:** Schafer B 11-14  
**Location:** NE SW Section 14 T37N R4E  
**County:** Liberty MT; Field (or Wildcat) Whitlash

**Air Quality**

(possible concerns)

Long drilling time: No, 3 to 4 days drilling time.

Unusually deep drilling (high horsepower rig): No, small single derrick drilling rig to drill to 2550' TD.

Possible H<sub>2</sub>S gas production: None anticipated.

In/near Class I air quality area: No Class I air quality area.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☐ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: \_\_\_\_\_

Comments: No special concerns – using small rig to drill to 2550' TD.

**Water Quality**

(possible concerns)

Salt/oil based mud: No, freshwater, freshwater mud system.

High water table: No high water table anticipated.

Surface drainage leads to live water: No, closest drainage is Dohrs Creek, an ephemeral drainage, about 3/16 of a mile to the west from this location and an unnamed ephemeral tributary drainage to Dohrs Creek about 1/8 of a mile to the south from this location.

Water well contamination: No, closest water wells are about ¼ of a mile to the northwest, 1/2 of a mile to the southeast and 5/8 of a mile to the northeast from this location. Depth of these wells are about 9', 325' and 425' respectively in depth. This well will have surface hole drilled with freshwater and freshwater mud system. Surface casing will be run and cement to surface from 340'. If productive 4 ½" production casing will be run and cemented to surface.

Porous/permeable soils: No, sandy bentonitic soils.

Class I stream drainage: No

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: \_\_\_\_\_

Comments: Freshwater mud systems to be used to drill surface hole and mainhole. 8 5/8" surface casing will be run and cemented to surface from 340'. 4 ½" production casing will be run and cemented to surface, if well is productive.

## Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, no stream crossings.

High erosion potential: No, small cut, up to 5.1' and small fill, up to 7.2', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, small 150'X150' location size required.

Damage to improvements: Slight, surface is grassland.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other \_\_\_\_\_

Comments: Access will be over existing county road, Schaefer Road and existing well and ranch trails. A short access will be built off an existing trail into this location. Drilling fluids will be allowed to dry in the pits. Drill cuttings and solids will be allowed to dry in the unlined pit. Pit will be backfilled when dry. No special concerns.

## Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Schafer Ranch is about 1/2 of a mile to the northeast and Morrison Ranch is about 1 1/4 miles to the southwest of this location. Bear Gulch School about 1 3/8 of a mile to the south from this location.

Possibility of H2S: None anticipated.

Size of rig/length of drilling time: Small drilling rig/short 3 to 4 days drilling time.

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: \_\_\_\_\_

Comments: No concerns. Adequate surface casing and operational BOP should mitigate any problems. Distance and topographical features should mitigate any noise issues.

## Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Only species listed as threatened or endangered is the Black-Footed Ferret.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DSL)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other: \_\_\_\_\_

Comments: Private surface lands. No concerns.

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### Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified

Mitigation

- ☐ avoidance (topographic tolerance, location exception)
- ☐ other agency review (SHPO, DSL, federal agencies)
- ☐ Other: \_\_\_\_\_

Comments: Private surface lands. No concerns.

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### Social/Economic

(possible concerns)

- ☐ Substantial effect on tax base
- ☐ Create demand for new governmental services
- ☐ Population increase or relocation

Comments: Development oil well in an existing oil field, Whitlash Oil Field. No concerns.

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### Remarks or Special Concerns for this site

Well is a 2550' Rierdon Formation test.

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### Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur, but can be mitigated in a short time frame.

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I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/ Steven Sasaki  
(title:) Chief Field Inspector

Date: March 16, 2010

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website  
(Name and Agency)  
Liberty County water wells  
(subject discussed)  
March 16, 2010  
(date)

US Fish and Wildlife, Region 6 website  
(Name and Agency)  
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES  
MONTANA COUNTIES, Liberty County  
(subject discussed)

March 16, 2010  
(date)

If location was inspected before permit approval:

Inspection date: \_\_\_\_\_

Inspector: \_\_\_\_\_

Others present during inspection: \_\_\_\_\_